

EXPERIENCE
AND EDUCATION

JOHN DEWEY

THE KAPPA DELTA PI
LECTURE SERIES

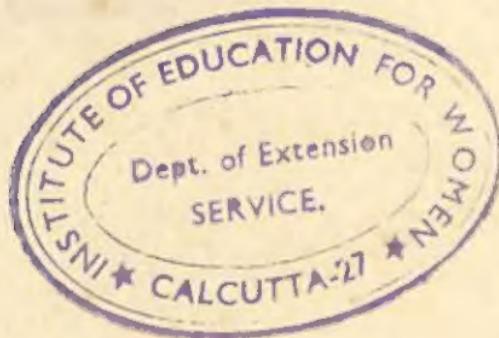
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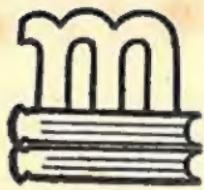
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EDUCATION





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by

JOHN DEWEY

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PREFACE

All social movements involve conflicts which are reflected intellectually in controversies. It would not be a sign of health if such an important social interest as education were not also an arena of struggles, practical and theoretical. But for theory, at least for the theory that forms a philosophy of education, the practical conflicts and the controversies that are conducted upon the level of these conflicts, only set a problem. It is the business of an intelligent theory of education to ascertain the causes for the conflicts that exist and then, instead of taking one side or the other, to indicate a plan of operations proceeding from a level deeper and more inclusive than is represented by the practices and ideas of the contending parties.

This formulation of the business of the philosophy of education does not mean that the latter should attempt to bring about a compromise between opposed schools of thought, to

find a *via media*, nor yet make an eclectic combination of points picked out hither and yon from all schools. It means the necessity of the introduction of a new order of conceptions leading to new modes of practice. It is for this reason that it is so difficult to develop a philosophy of education, the moment tradition and custom are departed from. It is for this reason that the conduct of schools, based upon a new order of conceptions, is so much more difficult than is the management of schools which walk in beaten paths. Hence, every movement in the direction of a new order of ideas and of activities directed by them calls out, sooner or later, a return to what appear to be simpler and more fundamental ideas and practices of the past—as is exemplified at present in education in the attempt to revive the principles of ancient Greece and of the middle ages.

It is in this context that I have suggested at the close of this little volume that those who are looking ahead to a new movement in education, adapted to the existing need for a new social order, should think in terms of Education itself rather than in terms of some 'ism about

education, even such an 'ism as "progressivism." For in spite of itself any movement that thinks and acts in terms of an 'ism becomes so involved in reaction against other 'isms that it is unwittingly controlled by them. For it then forms its principles by reaction against them instead of by a comprehensive constructive survey of actual needs, problems, and possibilities. Whatever value is possessed by the essay presented in this little volume resides in its attempt to call attention to the larger and deeper issues of Education so as to suggest their proper frame of reference.

JOHN DEWEY

EDITORIAL FOREWORD

Experience and Education completes the first ten-year cycle of the Kappa Delta Pi Lecture Series. The present volume therefore is, in part, an anniversary publication honoring Dr. Dewey as the Society's first and tenth lecturer. Although brief, as compared with the author's other works, *Experience and Education* is a major contribution to educational philosophy. Appearing in the midst of widespread confusion, which regrettably has scattered the forces of American education and exalted labels of conflicting loyalties, this little volume offers clear and certain guidance toward a united educational front. Inasmuch as teachers of the "new" education have avowedly applied the teachings of Dr. Dewey and emphasized experience, experiment, purposeful learning, freedom, and other well-known concepts of "progressive education," it is well to learn how Dr. Dewey himself reacts to current educational practices.

In the interest of clear understanding and a union of effort the Executive Council of Kappa Delta Pi requested Dr. Dewey to discuss some of the moot questions that now divide American education into two camps and thereby weaken it at a time when its full strength is needed in guiding a bewildered nation through the hazards of social change.

Experience and Education is a lucid analysis of both "traditional" and "progressive" education. The fundamental defects of each are here described. Where the traditional school relied upon subjects or the cultural heritage for its content, the "new" school has exalted the learner's impulse and interest and the current problems of a changing society. Neither of these sets of values is sufficient unto itself. *Both* are essential. Sound educational experience involves, above all, continuity and interaction between the learner and what is learned. The traditional curriculum undoubtedly entailed rigid regimentation and a discipline that ignored the capacities and interests of child nature. Today, however, the reaction to this type of schooling often fosters the other extreme—inchoate curriculum,

excessive individualism, and a spontaneity which is a deceptive index of freedom. Dr. Dewey insists that neither the old nor the new education is adequate. Each is mis-educative because neither of them applies the principles of a carefully developed philosophy of experience. Many pages of the present volume illustrate the meaning of experience and its relation to education.

Frowning upon labels that express and prolong schism, Dr. Dewey interprets education as the scientific method by means of which man studies the world, acquires cumulatively knowledge of meanings and values, these outcomes, however, being data for critical study and intelligent living. The tendency of scientific inquiry is toward a body of knowledge which needs to be understood as the means whereby further inquiry may be directed. Hence the scientist, instead of confining his investigation to problems as they are discovered, proceeds to study the nature of problems, their age, conditions, significance. To this end he may need to review related stores of knowledge. Consequently, education must employ progressive organization of

subject-matter in order that the understanding of this subject-matter may illumine the meaning and significance of the problems. Scientific study leads to and enlarges experience, but this experience is educative only to the degree that it rests upon a continuity of significant knowledge and to the degree that this knowledge modifies or "modulates" the learner's outlook, attitude, and skill. The true learning situation, then, has longitudinal and lateral dimensions. It is both historical and social. It is orderly and dynamic.

Arresting pages here await the many educators and teachers who are earnestly seeking reliable guidance at this time. *Experience and Education* provides a firm foundation upon which they may unitedly promote an American educational system which respects all sources of experience and rests upon a positive—not a negative—philosophy of experience and education. Directed by such a positive philosophy, American educators will erase their contentious labels and in solid ranks labor in behalf of a better tomorrow.

ALFRED L. HALL-QUEST,
EDITOR OF KAPPA DELTA PI PUBLICATIONS

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**EXPERIENCE AND
EDUCATION**

I

TRADITIONAL *vs.* PROGRESSIVE
EDUCATION

MANKIND likes to think in terms of extreme opposites. It is given to formulating its beliefs in terms of *Either-Ors*, between which it recognizes no intermediate possibilities. When forced to recognize that the extremes cannot be acted upon, it is still inclined to hold that they are all right in theory but that when it comes to practical matters circumstances compel us to compromise. Educational philosophy is no exception. The history of educational theory is marked by opposition between the idea that education is development from within and that it is formation from without; that it is based upon natural endowments and that education is a process of overcoming natural inclination and substituting in its place habits acquired under external pressure.

I

At present, the opposition, so far as practical affairs of the school are concerned, tends to take the form of contrast between traditional and progressive education. If the underlying ideas of the former are formulated broadly, without the qualifications required for accurate statement, they are found to be about as follows: The subject-matter of education consists of bodies of information and of skills that have been worked out in the past; therefore, the chief business of the school is to transmit them to the new generation. In the past, there have also been developed standards and rules of conduct; moral training consists in forming habits of action in conformity with these rules and standards. Finally, the general pattern of school organization (by which I mean the relations of pupils to one another and to the teachers) constitutes the school a kind of institution sharply marked off from other social institutions. Call up in imagination the ordinary schoolroom, its time-schedules, schemes of classification, of examination and promotion, of rules of order, and I think you will grasp what is meant by "pattern of organization." If then you contrast

this scene with what goes on in the family, for example, you will appreciate what is meant by the school being a kind of institution sharply marked off from any other form of social organization.

The three characteristics just mentioned fix the aims and methods of instruction and discipline. The main purpose or objective is to prepare the young for future responsibilities and for success in life, by means of acquisition of the organized bodies of information and prepared forms of skill which comprehend the material of instruction. Since the subject-matter as well as standards of proper conduct are handed down from the past, the attitude of pupils must, upon the whole, be one of docility, receptivity, and obedience. Books, especially textbooks, are the chief representatives of the lore and wisdom of the past, while teachers are the organs through which pupils are brought into effective connection with the material. Teachers are the agents through which knowledge and skills are communicated and rules of conduct enforced.

I have not made this brief summary for the

purpose of criticizing the underlying philosophy. The rise of what is called new education and progressive schools is of itself a product of discontent with traditional education. In effect it is a criticism of the latter. When the implied criticism is made explicit it reads somewhat as follows: The traditional scheme is, in essence, ~~one~~ one of imposition from above and from outside. It imposes adult standards, subject-matter, and methods upon those who are only growing slowly toward maturity. The gap is so great that the required subject-matter, the methods of learning and of behaving are foreign to the existing capacities of the young. They are beyond the reach of the experience the young learners already possess. Consequently, they must be imposed; even though good teachers will use devices of art to cover up the imposition so as to relieve it of obviously brutal features.

But the gulf between the mature or adult products and the experience and abilities of the young is so wide that the very situation forbids much active participation by pupils in the development of what is taught. Theirs is to do—

and learn, as it was the part of the six hundred to do and die. Learning here means acquisition of what already is incorporated in books and in the heads of the elders. Moreover, that which is taught is thought of as essentially static. It is taught as a finished product, with little regard either to the ways in which it was originally built up or to changes that will surely occur in the future. It is to a large extent the cultural product of societies that assumed the future would be much like the past, and yet it is used as educational food in a society where change is the rule, not the exception. \

If one attempts to formulate the philosophy of education implicit in the practices of the newer education, we may, I think, discover certain common principles amid the variety of progressive schools now existing. To imposition from above is opposed expression and cultivation of individuality; to external discipline is opposed free activity; to learning from texts and teachers, learning through experience; to acquisition of isolated skills and techniques by drill, is opposed acquisition of them as means of attaining ends which make direct vital ap- =

peal; to preparation for a more or less remote future is opposed making the most of the opportunities of present life; to static aims and materials is opposed acquaintance with a changing world.

Now, all principles by themselves are abstract. They become concrete only in the consequences which result from their application. Just because the principles set forth are so fundamental and far-reaching, everything depends upon the interpretation given them as they are put into practice in the school and the home. It is at this point that the reference made earlier to *Either-Or* philosophies becomes peculiarly pertinent. The general philosophy of the new education may be sound, and yet the difference in abstract principles will not decide the way in which the moral and intellectual preference involved shall be worked out in practice. There is always the danger in a new movement that in rejecting the aims and methods of that which it would supplant, it may develop its principles negatively rather than positively and constructively. Then it takes its clew in practice

from that which is rejected instead of from the constructive development of its own philosophy.

I take it that the fundamental unity of the newer philosophy is found in the idea that there is an intimate and necessary relation between the processes of actual experience and education. If this be true, then a positive and constructive development of its own basic idea depends upon having a correct idea of experience. Take, for example, the question of organized subject-matter—which will be discussed in some detail later. The problem for progressive education is: What is the place and meaning of subject-matter and of organization *within* experience? How does subject-matter function? Is there anything inherent in experience which tends towards progressive organization of its contents? What results follow when the materials of experience are not progressively organized? A philosophy which proceeds on the basis of rejection, of sheer opposition, will neglect these questions. It will tend to suppose that because the old education was based on ready-made organization, therefore it suffices to reject the principle of organization *in toto*, instead of

striving to discover what it means and how it is to be attained on the basis of experience. We might go through all the points of difference between the new and the old education and reach similar conclusions. When external control is rejected, the problem becomes that of finding the factors of control that are inherent within experience. When external authority is rejected, it does not follow that all authority should be rejected, but rather that there is need to search for a more effective source of authority. Because the older education imposed the knowledge, methods, and the rules of conduct of the mature person upon the young, it does not follow, except upon the basis of the extreme *Either-Or* philosophy, that the knowledge and skill of the mature person has no directive value for the experience of the immature. On the contrary, basing education upon personal experience may mean more multiplied and more intimate contacts between the mature and the immature than ever existed in the traditional school, and consequently more, rather than less, guidance by others. The problem, then, is: how these contacts can be established

without violating the principle of learning through personal experience. The solution of this problem requires a well thought-out philosophy of the social factors that operate in the constitution of individual experience. \

What is indicated in the foregoing remarks is that the general principles of the new education do not of themselves solve any of the problems of the actual or practical conduct and management of progressive schools. Rather, they set new problems which have to be worked out on the basis of a new philosophy of experience. The problems are not even recognized, to say nothing of being solved, when it is assumed that it suffices to reject the ideas and practices of the old education and then go to the opposite extreme. Yet I am sure that you will appreciate what is meant when I say that many of the newer schools tend to make little or nothing of organized subject-matter of study; to proceed as if any form of direction and guidance by adults were an invasion of individual freedom, and as if the idea that education should be concerned with the present and future meant that acquaintance with the

past has little or no role to play in education. Without pressing these defects to the point of exaggeration, they at least illustrate what is meant by a theory and practice of education which proceeds negatively or by reaction against what has been current in education rather than by a positive and constructive development of purposes, methods, and subject-matter on the foundation of a theory of experience and its educational potentialities.

'It is not too much to say that an educational philosophy which professes to be based on the idea of freedom may become as dogmatic as ever was the traditional education which is reacted against. For any theory and set of practices is dogmatic which is not based upon critical examination of its own underlying principles. Let us say that the new education emphasizes the freedom of the learner. Very well. A problem is now set. What does freedom mean and what are the conditions under which it is capable of realization? Let us say that the kind of external imposition which was so common in the traditional school limited rather than promoted the intellectual and moral develop-

ment of the young. Again, very well. Recognition of this serious defect sets a problem. Just what is the role of the teacher and of books in promoting the educational development of the immature? Admit that traditional education employed as the subject-matter for study facts and ideas so bound up with the past as to give little help in dealing with the issues of the present and future. Very well. Now we have the problem of discovering the connection which actually exists *within* experience between the achievements of the past and the issues of the present. We have the problem of ascertaining how acquaintance with the past may be translated into a potent instrumentality for dealing effectively with the future. We may reject knowledge of the past as the *end* of education and thereby only emphasize its importance as a *means*. When we do that we have a problem that is new in the story of education: How shall the young become acquainted with the past in such a way that the acquaintance is a potent agent in appreciation of the living present?

II

THE NEED OF A THEORY OF EXPERIENCE

IN SHORT, the point I am making is that rejection of the philosophy and practice of traditional education sets a new type of difficult educational problem for those who believe in the new type of education. We shall operate blindly and in confusion until we recognize this fact; until we thoroughly appreciate that departure from the old solves no problems. What is said in the following pages is, accordingly, intended to indicate some of the main problems with which the newer education is confronted and to suggest the main lines along which their solution is to be sought. I assume that amid all uncertainties there is one permanent frame of reference: namely, the organic connection between education and personal experience; or,

that the new philosophy of education is committed to some kind of empirical and experimental philosophy. But experience and experiment are not self-explanatory ideas. Rather, their meaning is part of the problem to be explored. To know the meaning of empiricism we need to understand what experience is.

The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are mis-educative. Any experience is mis-educative that has the effect of arresting or distorting the growth of further experience. An experience may be such as to engender callousness; it may produce lack of sensitivity and of responsiveness. Then the possibilities of having richer experience in the future are restricted. Again, a given experience may increase a person's automatic skill in a particular direction and yet tend to land him in a groove or rut; the effect again is to narrow the field of further experience. An experience may be immediately enjoyable and yet promote the

formation of a slack and careless attitude; this attitude then operates to modify the quality of subsequent experiences so as to prevent a person from getting out of them what they have to give. Again, experiences may be so disconnected from one another that, while each is agreeable or even exciting in itself, they are not linked cumulatively to one another. Energy is then dissipated and a person becomes scatter-brained. Each experience may be lively, vivid, and "interesting," and yet their disconnectedness may artificially generate dispersive, disintegrated, centrifugal habits. The consequence of formation of such habits is inability to control future experiences. They are then taken, either by way of enjoyment or of discontent and revolt, just as they come. Under such circumstances, it is idle to talk of self-control.

Traditional education offers a plethora of examples of experiences of the kinds just mentioned. It is a great mistake to suppose, even tacitly, that the traditional schoolroom was not a place in which pupils had experiences. Yet this is tacitly assumed when progressive education as a plan of learning by experience is

placed in sharp opposition to the old. The proper line of attack is that the experiences which were had, by pupils and teachers alike, were largely of a wrong kind. How many students, for example, were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them? How many acquired special skills by means of automatic drill so that their power of judgment and capacity to act intelligently in new situations was limited? How many came to associate the learning process with ennui and boredom? How many found what they did learn so foreign to the situations of life outside the school as to give them no power of control over the latter? How many came to associate books with dull drudgery, so that they were "conditioned" to all but flashy reading matter?

If I ask these questions, it is not for the sake of wholesale condemnation of the old education. It is for quite another purpose. It is to emphasize the fact, first, that young people in traditional schools do have experiences; and, secondly, that the trouble is not the absence of

experiences, but their defective and wrong character—wrong and defective from the stand-point of connection with further experience. The positive side of this point is even more important in connection with progressive education. It is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything depends upon the *quality* of the experience which is had. The quality of any experience has two aspects. There is an immediate aspect of agreeableness or disagreeableness, and there is its influence upon later experiences. The first is obvious and easy to judge. The *effect* of an experience is not borne on its face. It sets a problem to the educator. It is his business to arrange for the kind of experiences which, while they do not repel the student, but rather engage his activities are, nevertheless, more than immediately enjoyable since they promote having desirable future experiences. Just as no man lives or dies to himself, so no experience lives and dies to itself. Wholly independent of desire or intent, every experience lives on in further experiences. Hence the central problem of an education

based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences.

Later, I shall discuss in more detail the principle of the continuity of experience or what may be called the experiential continuum. Here I wish simply to emphasize the importance of this principle for the philosophy of educative experience. A philosophy of education, like any theory, has to be stated in words, in symbols. But so far as it is more than verbal it is a plan for conducting education. Like any plan, it must be framed with reference to what is to be done and how it is to be done. The more definitely and sincerely it is held that education is a development within, by, and for experience, the more important it is that there shall be clear conceptions of what experience is. Unless experience is so conceived that the result is a plan for deciding upon subject-matter, upon methods of instruction and discipline, and upon material equipment and social organization of the school, it is wholly in the air. It is reduced to a form of words which may be emotionally stirring but for which any other set of words

might equally well be substituted unless they indicate operations to be initiated and executed. Just because traditional education was a matter of routine in which the plans and programs were handed down from the past, it does not follow that progressive education is a matter of planless improvisation.

The traditional school could get along without any consistently developed philosophy of education. About all it required in that line was a set of abstract words like culture, discipline, our great cultural heritage, etc., actual guidance being derived not from them but from custom and established routines. Just because progressive schools cannot rely upon established traditions and institutional habits, they must either proceed more or less haphazardly or be directed by ideas which, when they are made articulate and coherent, form a philosophy of education. Revolt against the kind of organization characteristic of the traditional school constitutes a demand for a kind of organization based upon ideas. I think that only slight acquaintance with the history of education is needed to prove that educational reformers and

innovators alone have felt the need for a philosophy of education. Those who adhered to the established system needed merely a few fine-sounding words to justify existing practices. The real work was done by habits which were so fixed as to be institutional. The lesson for progressive education is that it requires in an urgent degree, a degree more pressing than was incumbent upon former innovators, a philosophy of education based upon a philosophy of experience.

I remarked incidentally that the philosophy in question is, to paraphrase the saying of Lincoln about democracy, one of education of, by, and for experience. No one of these words, *of*, *by*, or *for*, names anything which is self-evident. Each of them is a challenge to discover and put into operation a principle of order and organization which follows from understanding what educative experience signifies.

It is, accordingly, a much more difficult task to work out the kinds of materials, of methods, and of social relationships that are appropriate to the new education than is the case with traditional education. I think many of the diffi-

culties experienced in the conduct of progressive schools and many of the criticisms leveled against them arise from this source. The difficulties are aggravated and the criticisms are increased when it is supposed that the new education is somehow easier than the old. This belief is, I imagine, more or less current. Perhaps it illustrates again the *Either-Or* philosophy, springing from the idea that about all which is required is *not* to do what is done in traditional schools.

I admit gladly that the new education is *simpler* in principle than the old. It is in harmony with principles of growth, while there is very much which is artificial in the old selection and arrangement of subjects and methods, and artificiality always leads to unnecessary complexity. But the easy and the simple are not identical. To discover what is really simple and to act upon the discovery is an exceedingly difficult task. After the artificial and complex is once institutionally established and ingrained in custom and routine, it is easier to walk in the paths that have been beaten than it is, after taking a new point of view, to work out what

is practically involved in the new point of view. The old Ptolemaic astronomical system was more complicated with its cycles and epicycles than the Copernican system. But until organization of actual astronomical phenomena on the ground of the latter principle had been effected the easiest course was to follow the line of least resistance provided by the old intellectual habit. So we come back to the idea that a coherent *theory* of experience, affording positive direction to selection and organization of appropriate educational methods and materials, is required by the attempt to give new direction to the work of the schools. The process is a slow and arduous one. It is a matter of growth, and there are many obstacles which tend to obstruct growth and to deflect it into wrong lines.

I shall have something to say later about organization. All that is needed, perhaps, at this point is to say that we must escape from the tendency to think of organization in terms of the *kind* of organization, whether of content (or subject-matter), or of methods and social relations, that mark traditional education.

I think that a good deal of the current opposition to the idea of organization is due to the fact that it is so hard to get away from the picture of the studies of the old school. The moment "organization" is mentioned imagination goes almost automatically to the kind of organization that is familiar, and in revolting against that we are led to shrink from the very idea of any organization. On the other hand, educational reactionaries, who are now gathering force, use the absence of adequate intellectual and moral organization in the newer type of school as proof not only of the need of organization, but to identify any and every kind of organization with that instituted before the rise of experimental science. Failure to develop a conception of organization upon the empirical and experimental basis gives reactionaries a too easy victory. But the fact that the empirical sciences now offer the best type of intellectual organization which can be found in any field shows that there is no reason why we, who call ourselves empiricists, should be "pushovers" in the matter of order and organization.

III

CRITERIA OF EXPERIENCE

IF THERE is any truth in what has been said about the need of forming a theory of experience in order that education may be intelligently conducted upon the basis of experience, it is clear that the next thing in order in this discussion is to present the principles that are most significant in framing this theory. I shall not, therefore, apologize for engaging in a certain amount of philosophical analysis, which otherwise might be out of place. I may, however, reassure you to some degree by saying that this analysis is not an end in itself but is engaged in for the sake of obtaining criteria to be applied later in discussion of a number of concrete and, to most persons, more interesting issues.

I have already mentioned what I called the

category of continuity, or the experiential continuum. This principle is involved, as I pointed out, in every attempt to discriminate between experiences that are worth while educationally and those that are not. It may seem superfluous to argue that this discrimination is necessary not only in criticizing the traditional type of education but also in initiating and conducting a different type. Nevertheless, it is advisable to pursue for a little while the idea that it is necessary. One may safely assume, I suppose, that one thing which has recommended the progressive movement is that it seems more in accord with the democratic ideal to which our people is committed than do the procedures of the traditional school, since the latter have so much of the autocratic about them. Another thing which has contributed to its favorable reception is that its methods are humane in comparison with the harshness so often attending the policies of the traditional school.

The question I would raise concerns why we prefer democratic and humane arrangements to those which are autocratic and harsh. And by "why," I mean the *reason* for prefer-

ring them, not just the *causes* which lead us to the preference. One *cause* may be that we have been taught not only in the schools but by the press, the pulpit, the platform, and our laws and law-making bodies that democracy is the best of all social institutions. We may have so assimilated this idea from our surroundings that it has become an habitual part of our mental and moral make-up. But similar causes have led other persons in different surroundings to widely varying conclusions—to prefer fascism, for example. The cause for our preference is not the same thing as the reason why we *should* prefer it.)

It is not my purpose here to go in detail into the reason. But I would ask a single question: Can we find any reason that does not ultimately come down to the belief that democratic social arrangements promote a better quality of human experience, one which is more widely accessible and enjoyed, than do non-democratic and anti-democratic forms of social life? Does not the principle of regard for individual freedom and for decency and kindness of human relations come back in the end to the conviction

that these things are tributary to a higher quality of experience on the part of a greater number than are methods of repression and coercion or force? Is it not the reason for our preference that we believe that mutual consultation and convictions reached through persuasion, make possible a better quality of experience than can otherwise be provided on any wide scale?

If the answer to these questions is in the affirmative (and personally I do not see how we can justify our preference for democracy and humanity on any other ground), the ultimate reason for hospitality to progressive education, because of its reliance upon and use of humane methods and its kinship to democracy, goes back to the fact that discrimination is made between the inherent values of different experiences. So I come back to the principle of continuity of experience as a criterion of discrimination.

At bottom, this principle rests upon the fact of habit, when *habit* is interpreted biologically. The basic characteristic of habit is that every experience enacted and undergone modifies the one who acts and undergoes, while this modi-

fication affects, whether we wish it or not, the quality of subsequent experiences. For it is a somewhat different person who enters into them. The principle of habit so understood obviously goes deeper than the ordinary conception of a habit as a more or less fixed way of doing things, although it includes the latter as one of its special cases. It covers the formation of attitudes, attitudes that are emotional and intellectual; it covers our basic sensitivities and ways of meeting and responding to all the conditions which we meet in living. From this point of view, the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after. As the poet states it,

“. . . all experience is an arch wherethro'
Gleams that untraveled world, whose margin
fades . . .
For ever and for ever when I move.”

So far, however, we have no ground for discrimination among experiences. For the principle is of universal application. There is *some*

kind of continuity in every case. It is when we note the different forms in which continuity of experience operates that we get the basis of discriminating among experiences. I may illustrate what is meant by an objection which has been brought against an idea which I once put forth—namely, that the educative process can be identified with growth when that is understood in terms of the active participle, *growing*.

Growth, or growing as developing, not only physically but intellectually and morally, is one exemplification of the principle of continuity. The objection made is that growth might take many different directions: a man, for example, who starts out on a career of burglary may grow in that direction, and by practice may grow into a highly expert burglar. Hence it is argued that "growth" is not enough; we must also specify the direction in which growth takes place, the end towards which it tends. Before, however, we decide that the objection is conclusive we must analyze the case a little further.

That a man may grow in efficiency as a burglar, as a gangster, or as a corrupt politician,

cannot be doubted. But from the standpoint of growth as education and education as growth the question is whether growth in this direction promotes or retards growth in general. Does this form of growth create conditions for further growth, or does it set up conditions that shut off the person who has grown in this particular direction from the occasions, stimuli, and opportunities for continuing growth in new directions? What is the effect of growth in a special direction upon the attitudes and habits which alone open up avenues for development in other lines? I shall leave you to answer these questions, saying simply that when and *only* when development in a particular line conduces to continuing growth does it answer to the criterion of education as growing. For the conception is one that must find universal and not specialized limited application.

I return now to the question of continuity as a criterion by which to discriminate between experiences which are educative and those which are mis-educative. As we have seen, there is some kind of continuity in any case since every experience affects for better or worse the atti-

tudes which help decide the quality of further experiences, by setting up certain preference and aversion, and making it easier or harder to act for this or that end. Moreover, every experience influences in some degree the objective conditions under which further experiences are had. For example, a child who learns to speak has a new facility and new desire. But he has also widened the external conditions of subsequent learning. When he learns to read, he similarly opens up a new environment. If a person decides to become a teacher, lawyer, physician, or stockbroker, when he executes his intention he thereby necessarily determines to some extent the environment in which he will act in the future. He has rendered himself more sensitive and responsive to certain conditions, and relatively immune to those things about him that would have been stimuli if he had made another choice.

But, while the principle of continuity applies in some way in every case, the quality of the present experience influences the way in which the principle applies. We speak of spoiling a child and of the spoilt child. The effect of over-

indulging a child is a continuing one. It sets up an attitude which operates as an automatic demand that persons and objects cater to his desires and caprices in the future. It makes him seek the kind of situation that will enable him to do what he feels like doing at the time. It renders him averse to and comparatively incompetent in situations which require effort and perseverance in overcoming obstacles. There is no paradox in the fact that the principle of the continuity of experience may operate so as to leave a person arrested on a low plane of development, in a way which limits later capacity for growth. \

On the other hand, if an experience arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way. Every experience is a moving force. Its value can be judged only on the ground of what it moves toward and into. The greater maturity of experience which should belong to the adult as educator puts him in a position to evaluate each experience of the young in a way in which the

one having the less mature experience cannot do. It is then the business of the educator to see in what direction an experience is heading. There is no point in his being more mature if, instead of using his greater insight to help organize the conditions of the experience of the immature, he throws away his insight. Failure to take the moving force of an experience into account so as to judge and direct it on the ground of what it is moving into means disloyalty to the principle of experience itself. The disloyalty operates in two directions. The educator is false to the understanding that he should have obtained from his own past experience. He is also unfaithful to the fact that all human experience is ultimately social: that it involves contact and communication. The mature person, to put it in moral terms, has no right to withhold from the young on given occasions whatever capacity for sympathetic understanding his own experience has given him.

No sooner, however, are such things said than there is a tendency to react to the other extreme and take what has been said as a plea

for some sort of disguised imposition from outside. It is worth while, accordingly, to say something about the way in which the adult can exercise the wisdom his own wider experience gives him without imposing a merely external control. On one side, it is his business to be on the alert to see what attitudes and habitual tendencies are being created. In this direction he must, if he is an educator, be able to judge what attitudes are actually conducive to continued growth and what are detrimental. He must, in addition, have that sympathetic understanding of individuals as individuals which gives him an idea of what is actually going on in the minds of those who are learning. It is, among other things, the need for these abilities on the part of the parent and teacher which makes a system of education based upon living experience a more difficult affair to conduct successfully than it is to follow the patterns of traditional education.

But there is another aspect of the matter. Experience does not go on simply inside a person. It does go on there, for it influences the formation of attitudes of desire and pur-

pose. But this is not the whole of the story. Every genuine experience has an active side which changes in some degree the objective conditions under which experiences are had. The difference between civilization and savagery, to take an example on a large scale, is found in the degree in which previous experiences have changed the objective conditions under which subsequent experiences take place. The existence of roads, of means of rapid movement and transportation, tools, implements, furniture, electric light and power, are illustrations. Destroy the external conditions of present civilized experience, and for a time our experience would relapse into that of barbaric peoples.

In a word, we live from birth to death in a world of persons and things which in large measure is what it is because of what has been done and transmitted from previous human activities. When this fact is ignored, experience is treated as if it were something which goes on exclusively inside an individual's body and mind. It ought not to be necessary to say that experience does not occur in a vacuum. There

are sources outside an individual which give rise to experience. It is constantly fed from these springs. No one would question that a child in a slum tenement has a different experience from that of a child in a cultured home; that the country lad has a different kind of experience from the city boy, or a boy on the seashore one different from the lad who is brought up on inland prairies. Ordinarily we take such facts for granted as too commonplace to record. But when their educational import is recognized, they indicate the second way in which the educator can direct the experience of the young without engaging in imposition. A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth. Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worth while.

(Traditional education did not have to face this problem; it could systematically dodge this responsibility. The school environment of desks, blackboards, a small school yard, was supposed to suffice. There was no demand that the teacher should become intimately acquainted with the conditions of the local community, physical, historical, economic, occupational, etc., in order to utilize them as educational resources. A system of education based upon the necessary connection of education with experience must, on the contrary, if faithful to its principle, take these things constantly into account. This tax upon the educator is another reason why progressive education is more difficult to carry on than was ever the traditional system.)

It is possible to frame schemes of education that pretty systematically subordinate objective conditions to those which reside in the individuals being educated. This happens whenever the place and function of the teacher, of books, of apparatus and equipment, of everything which represents the products of the more mature experience of elders, is systematically subordinated to the immediate inclinations and

feelings of the young. Every theory which assumes that importance can be attached to these objective factors only at the expense of imposing external control and of limiting the freedom of individuals rests finally upon the notion that experience is truly experience only when objective conditions are subordinated to what goes on within the individuals having the experience.

I do not mean that it is supposed that objective conditions can be shut out. It is recognized that they must enter in: so much concession is made to the inescapable fact that we live in a world of things and persons. But I think that observation of what goes on in some families and some schools would disclose that some parents and some teachers are acting upon the idea of *subordinating* objective conditions to internal ones. In that case, it is assumed not only that the latter are primary, which in one sense they are, but that just as they temporarily exist they fix the whole educational process.

Let me illustrate from the case of an infant. The needs of a baby for food, rest, and activity are certainly primary and decisive in one re-

spect. Nourishment must be provided; provision must be made for comfortable sleep, and so on. But these facts do not mean that a parent shall feed the baby at any time when the baby is cross or irritable, that there shall not be a program of regular hours of feeding and sleeping, etc. The wise mother takes account of the needs of the infant but not in a way which dispenses with her own responsibility for regulating the objective conditions under which the needs are satisfied. And if she is a wise mother in this respect, she draws upon past experiences of experts as well as her own for the light that these shed upon what experiences are in general most conducive to the normal development of infants. Instead of these conditions being subordinated to the immediate internal condition of the baby, they are definitely ordered so that a particular kind of *interaction* with these immediate internal states may be brought about.

(The word "interaction," which has just been used, expresses the second chief principle for interpreting an experience in its educational function and force. It assigns equal rights to

both factors in experience—objective and internal conditions. Any normal experience is an interplay of these two sets of conditions. Taken together, or in their interaction, they form what we call a *situation*. The trouble with traditional education was not that it emphasized the external conditions that enter into the control of the experiences but that it paid so little attention to the internal factors which also decide what kind of experience is had. It violated the principle of interaction from one side. But this violation is no reason why the new education should violate the principle from the other side—except upon the basis of the extreme *Either-Or* educational philosophy which has been mentioned.

The illustration drawn from the need for regulation of the objective conditions of a baby's development indicates, first, that the parent has responsibility for arranging the conditions under which an infant's experience of food, sleep, etc., occurs, and, secondly, that the responsibility is fulfilled by utilizing the funded experience of the past, as this is represented, say, by the advice of competent physicians and others who have made a special study

of normal physical growth. Does it limit the freedom of the mother when she uses the body of knowledge thus provided to regulate the objective conditions of nourishment and sleep? Or does the enlargement of her intelligence in fulfilling her parental function widen her freedom? Doubtless if a fetish were made of the advice and directions so that they came to be inflexible dictates to be followed under every possible condition, then restriction of freedom of both parent and child would occur. But this restriction would also be a limitation of the intelligence that is exercised in personal judgment.

In what respect does regulation of objective conditions limit the freedom of the baby? Some limitation is certainly placed upon its immediate movements and inclinations when it is put in its crib, at a time when it wants to continue playing, or does not get food at the moment it would like it, or when it isn't picked up and dandled when it cries for attention. Restriction also occurs when mother or nurse snatches a child away from an open fire into which it is about to fall. I shall have more to say later about freedom.

Here it is enough to ask whether freedom is to be thought of and adjudged on the basis of relatively momentary incidents or whether its meaning is found in the continuity of developing experience.

The statement that individuals live in a world means, in the concrete, that they live in a series of situations. And when it is said that they live *in* these situations, the meaning of the word "in" is different from its meaning when it is said that pennies are "in" a pocket or paint is "in" a can. It means, once more, that interaction is going on between an individual and objects and other persons. The conceptions of *situation* and of *interaction* are inseparable from each other.) An experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his environment, whether the latter consists of persons with whom he is talking about some topic or event, the subject talked about being also a part of the situation; or the toys with which he is playing; the book he is reading (in which his environing conditions at the time may be England or ancient Greece or

an imaginary region); or the materials of an experiment he is performing. The environment, in other words, is whatever conditions interact with personal needs, desires, purposes, and capacities to create the experience which is had. Even when a person builds a castle in the air he is interacting with the objects which he constructs in fancy.

The two principles of continuity and interaction are not separate from each other. They intercept and unite. They are, so to speak, the longitudinal and lateral aspects of experience. Different situations succeed one another. But because of the principle of continuity something is carried over from the earlier to the later ones. As an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in a different part or aspect of one and the same world. What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow. The process goes on as long as life and learning continue. Otherwise the

course of experience is disorderly, since the individual factor that enters into making an experience is split. A divided world, a world whose parts and aspects do not hang together, is at once a sign and a cause of a divided personality. When the splitting-up reaches a certain point we call the person insane. A fully integrated personality, on the other hand, exists only when successive experiences are integrated with one another. It can be built up only as a world of related objects is constructed.)

Continuity and interaction in their active union with each other provide the measure of the educative significance and value of an experience. The immediate and direct concern of an educator is then with the situations in which interaction takes place. The individual, who enters as a factor into it, is what he is at a given time. It is the other factor, that of objective conditions, which lies to some extent within the possibility of regulation by the educator. As has already been noted, the phrase "objective conditions" covers a wide range. It includes what is done by the educator and the way in which it is done, not only words spoken but

the tone of voice in which they are spoken. It includes equipment, books, apparatus, toys, games played. It includes the materials with which an individual interacts, and, most important of all, the total *social* set-up of the situations in which a person is engaged.

When it is said that the objective conditions are those which are within the power of the educator to regulate, it is meant, of course, that his ability to influence directly the experience of others and thereby the education they obtain places upon him the duty of determining that environment which will interact with the existing capacities and needs of those taught to create a worth-while experience. The trouble with traditional education was not that educators took upon themselves the responsibility for providing an environment. The trouble was that they did not consider the other factor in creating an experience; namely, the powers and purposes of those taught. It was assumed that a certain set of conditions was intrinsically desirable, apart from its ability to evoke a certain quality of response in individuals. This lack of mutual adaptation made the process of

teaching and learning accidental. Those to whom the provided conditions were suitable managed to learn. Others got on as best they could. Responsibility for selecting objective conditions carries with it, then, the responsibility for understanding the needs and capacities of the individuals who are learning at a given time. It is not enough that certain materials and methods have proved effective with other individuals at other times. There must be a reason for thinking that they will function in generating an experience that has educative quality with particular individuals at a particular time.

It is no reflection upon the nutritive quality of beefsteak that it is not fed to infants. It is not an invidious reflection upon trigonometry that we do not teach it in the first or fifth grade of school. It is not the subject *per se* that is educative or that is conducive to growth. There is no subject that is in and of itself, or without regard to the stage of growth attained by the learner, such that inherent educational value can be attributed to it. Failure to take into account adaptation to the needs and capacities of individuals was the source of the idea that cer-

tain subjects and certain methods are intrinsically cultural or intrinsically good for mental discipline. There is no such thing as educational value in the abstract. The notion that some subjects and methods and that acquaintance with certain facts and truths possess educational value in and of themselves is the reason why traditional education reduced the material of education so largely to a diet of predigested materials. According to this notion, it was enough to regulate the quantity and difficulty of the material provided, in a scheme of quantitative grading, from month to month and from year to year. Otherwise a pupil was expected to take it in the doses that were prescribed from without. If the pupil left it instead of taking it, if he engaged in physical truancy, or in the mental truancy of mind-wandering and finally built up an emotional revulsion against the subject, he was held to be at fault. No question was raised as to whether the trouble might not lie in the subject-matter or in the way in which it was offered. The principle of interaction makes it clear that failure of adaptation of material to needs and capacities of individuals may cause

an experience to be non-educative quite as much as failure of an individual to adapt himself to the material.

The principle of continuity in its educational application means, nevertheless, that the future has to be taken into account at every stage of the educational process. This idea is easily misunderstood and is badly distorted in traditional education. Its assumption is, that by acquiring certain skills and by learning certain subjects which would be needed later (perhaps in college or perhaps in adult life) pupils are as a matter of course made ready for the needs and circumstances of the future. Now "preparation" is a treacherous idea. In a certain sense every experience should do something to prepare a person for later experiences of a deeper and more expansive quality. That is the very meaning of growth, continuity, reconstruction of experience. But it is a mistake to suppose that the mere acquisition of a certain amount of arithmetic, geography, history, etc., which is taught and studied because it may be useful at some time in the future, has this effect, and it is a mistake to suppose that acquisition of skills

in reading and figuring will automatically constitute preparation for their right and effective use under conditions very unlike those in which they were acquired.

Almost everyone has had occasion to look back upon his school days and wonder what has become of the knowledge he was supposed to have amassed during his years of schooling, and why it is that the technical skills he acquired have to be learned over again in changed form in order to stand him in good stead. Indeed, he is lucky who does not find that in order to make progress, in order to go ahead intellectually, he does not have to unlearn much of what he learned in school. These questions cannot be disposed of by saying that the subjects were not actually learned, for they were learned at least sufficiently to enable a pupil to pass examinations in them. One trouble is that the subject-matter in question was learned in isolation; it was put, as it were, in a water-tight compartment. When the question is asked, then, what has become of it, where has it gone to, the right answer is that it is still there in the special compartment in which it was originally stowed

away. If exactly the same conditions recurred as those under which it was acquired, it would also recur and be available. But it was segregated when it was acquired and hence is so disconnected from the rest of experience that it is not available under the actual conditions of life. It is contrary to the laws of experience that learning of this kind, no matter how thoroughly engrained at the time, should give genuine preparation.

Nor does failure in preparation end at this point. Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time. Collateral learning in the way of formation of enduring attitudes, of likes and dislikes, may be and often is much more important than the spelling lesson or lesson in geography or history that is learned. For these attitudes are fundamentally what count in the future. The most important attitude that can be formed is that of desire to go on learning. If impetus in this direction is weakened instead of being intensified, something much more than mere lack of preparation takes place. The pupil is actually

robbed of native capacities which otherwise would enable him to cope with the circumstances that he meets in the course of his life. We often see persons who have had little schooling and in whose case the absence of set schooling proves to be a positive asset. They have at least retained their native common sense and power of judgment, and its exercise in the actual conditions of living has given them the precious gift of ability to learn from the experiences they have. What avail is it to win prescribed amounts of information about geography and history, to win ability to read and write, if in the process the individual loses his own soul: loses his appreciation of things worth while, of the values to which these things are relative; if he loses desire to apply what he has learned and, above all, loses the ability to extract meaning from his future experiences as they occur?

What, then, is the true meaning of preparation in the educational scheme? In the first place, it means that a person, young or old, gets out of his present experience all that there is in it for him at the time in which he has it.

When preparation is made the controlling end, then the potentialities of the present are sacrificed to a supposititious future. When this happens, the actual preparation for the future is missed or distorted. The ideal of using the present simply to get ready for the future contradicts itself. It omits, and even shuts out, the very conditions by which a person can be prepared for his future. We always live at the time we live and not at some other time, and only by extracting at each present time the full meaning of each present experience are we prepared for doing the same thing in the future. This is the only preparation which in the long run amounts to anything.

All this means that attentive care must be devoted to the conditions which give each present experience a worth-while meaning. Instead of inferring that it doesn't make much difference what the present experience is as long as it is enjoyed, the conclusion is the exact opposite. Here is another matter where it is easy to react from one extreme to the other. Because traditional schools tended to sacrifice the present to a remote and more or less unknown

future, therefore it comes to be believed that the educator has little responsibility for the kind of present experiences the young undergo. But the relation of the present and the future is not an *Either-Or* affair. The present affects the future anyway. The persons who should have some idea of the connection between the two are those who have achieved maturity. Accordingly, upon them devolves the responsibility for instituting the conditions for the kind of present experience which has a favorable effect upon the future. Education as growth or maturity should be an ever-present process.

IV

SOCIAL CONTROL

I HAVE said that educational plans and projects, seeing education in terms of life-experience, are thereby committed to framing and adopting an intelligent theory or, if you please, philosophy of experience. Otherwise they are at the mercy of every intellectual breeze that happens to blow. I have tried to illustrate the need for such a theory by calling attention to two principles which are fundamental in the constitution of experience: the principles of interaction and of continuity. If, then, I am asked why I have spent so much time on expounding a rather abstract philosophy, it is because practical attempts to develop schools based upon the idea that education is found in life-experience are bound to exhibit inconsistencies and confusions unless they are

guided by some conception of what experience is, and what marks off educative experience from non-educative and miseducative experience. I now come to a group of actual educational questions the discussion of which will, I hope, provide topics and material that are more concrete than the discussion up to this point.

The two principles of continuity and interaction as criteria of the value of experience are so intimately connected that it is not easy to tell just what special educational problem to take up first. Even the convenient division into problems of subject-matter or studies and of methods of teaching and learning is likely to fail us in selection and organization of topics to discuss. Consequently, the beginning and sequence of topics is somewhat arbitrary. I shall commence, however, with the old question of individual freedom and social control and pass on to the questions that grow naturally out of it.

It is often well in considering educational problems to get a start by temporarily ignoring the school and thinking of other human situations. I take it that no one would deny

that the ordinary good citizen is as a matter of fact subject to a great deal of social control and that a considerable part of this control is not felt to involve restriction of personal freedom. Even the theoretical anarchist, whose philosophy commits him to the idea that state or government control is an unmitigated evil, believes that with abolition of the political state other forms of social control would operate: indeed, his opposition to governmental regulation springs from his belief that other and to him more normal modes of control would operate with abolition of the state.

Without taking up this extreme position, let us note some examples of social control that operate in everyday life, and then look for the principle underlying them. Let us begin with the young people themselves. Children at recess or after school play games, from tag and one-old-cat to baseball and football. The games involve rules, and these rules order their conduct. The games do not go on haphazardly or by a succession of improvisations. Without rules there is no game. If disputes arise there is an umpire to appeal to, or discussion and a kind of

arbitration are means to a decision; otherwise the game is broken up and comes to an end.

There are certain fairly obvious controlling features of such situations to which I want to call attention. The first is that the rules are a part of the game. They are not outside of it. No rules, then no game; different rules, then a different game. As long as the game goes on with a reasonable smoothness, the players do not feel that they are submitting to external imposition but that they are playing the game. In the second place an individual may at times feel that a decision isn't fair and he may even get angry. But he is not objecting to a rule but to what he claims is a violation of it, to some one-sided and unfair action. In the third place, the rules, and hence the conduct of the game, are fairly standardized. There are recognized ways of counting out, of selection of sides, as well as for positions to be taken, movements to be made, etc. These rules have the sanction of tradition and precedent. Those playing the game have seen, perhaps, professional matches and they want to emulate their elders. An element that is conventional is pretty strong.

Usually, a group of youngsters change the rules by which they play only when the adult group to which they look for models have themselves made a change in the rules, while the change made by the elders is at least supposed to conduce to making the game more skillful or more interesting to spectators.

Now, the general conclusion I would draw is that control of individual actions is effected by the whole situation in which individuals are involved, in which they share and of which they are co-operative or interacting parts. For even in a competitive game there is a certain kind of participation, of sharing in a common experience. Stated the other way around, those who take part do not feel that they are bossed by an individual person or are being subjected to the will of some outside superior person. When violent disputes do arise, it is usually on the alleged ground that the umpire or some person on the other side is being unfair; in other words, that in such cases some individual is trying to impose his individual will on someone else.

It may seem to be putting too heavy a load

upon a single case to argue that this instance illustrates the general principle of social control of individuals without the violation of freedom. But if the matter were followed out through a number of cases, I think the conclusion that this particular instance does illustrate a general principle would be justified. Games are generally competitive. If we took instances of co-operative activities in which all members of a group take part, as for example in well-ordered family life in which there is mutual confidence, the point would be even clearer. In all such cases it is not the will or desire of any one person which establishes order but the moving spirit of the whole group. The control is social, but individuals are parts of a community, not outside of it.

I do not mean by this that there are no occasions upon which the authority of, say, the parent does not have to intervene and exercise fairly direct control. But I do say that, in the first place, the number of these occasions is slight in comparison with the number of those in which the control is exercised by situations in which all take part. And what is even more im-

portant, the authority in question when exercised in a well-regulated household or other community group is not a manifestation of merely personal will; the parent or teacher exercises it as the representative and agent of the interests of the group as a whole. With respect to the first point, in a well-ordered school the main reliance for control of this and that individual is upon the activities carried on and upon the situations in which these activities are maintained. The teacher reduces to a minimum the occasions in which he or she has to exercise authority in a personal way. When it is necessary, in the second place, to speak and act firmly, it is done in behalf of the interest of the group, not as an exhibition of personal power. This makes the difference between action which is arbitrary and that which is just and fair.

Moreover, it is not necessary that the difference should be formulated in words, by either teacher or the young, in order to be felt in experience. The number of children who do not feel the difference (even if they cannot articulate it and reduce it to an intellectual principle) between action that is motivated by personal

power and desire to dictate and action that is fair, because in the interest of all, is small. I should even be willing to say that upon the whole children are more sensitive to the signs and symptoms of this difference than are adults. Children learn the difference when playing with one another. They are willing, often too willing if anything, to take suggestions from one child and let him be a leader if his conduct adds to the experienced value of what they are doing, while they resent the attempt at dictation. Then they often withdraw and when asked why, say that it is because so-and-so "is too bossy."

I do not wish to refer to the traditional school in ways which set up a caricature in lieu of a picture. But I think it is fair to say that one reason the personal commands of the teacher so often played an undue role and a reason why the order which existed was so much a matter of sheer obedience to the will of an adult was because the situation almost forced it upon the teacher. The school was not a group or community held together by participation in common activities. Consequently, the normal,

proper conditions of control were lacking. Their absence was made up for, and to a considerable extent had to be made up for, by the direct intervention of the teacher, who, as the saying went, "*kept* order." He kept it because order was in the teacher's keeping, instead of residing in the shared work being done.

The conclusion is that in what are called the new schools, the primary source of social control resides in the very nature of the work done as a social enterprise in which all individuals have an opportunity to contribute and to which all feel a responsibility. Most children are naturally "sociable." Isolation is even more irksome to them than to adults. A genuine community life has its ground in this natural sociability. But community life does not organize itself in an enduring way purely spontaneously. It requires thought and planning ahead. The educator is responsible for a knowledge of individuals and for a knowledge of subject-matter that will enable activities to be selected which lend themselves to social organization, an organization in which all individuals have an opportunity to contribute something, and in

which the activities in which all participate are the chief carrier of control.

I am not romantic enough about the young to suppose that every pupil will respond or that any child of normally strong impulses will respond on every occasion. There are likely to be some who, when they come to school, are already victims of injurious conditions outside of the school and who have become so passive and unduly docile that they fail to contribute. There will be others who, because of previous experience, are bumptious and unruly and perhaps downright rebellious. But it is certain that the general principle of social control cannot be predicated upon such cases. It is also true that no general rule can be laid down for dealing with such cases. The teacher has to deal with them individually. They fall into general classes, but no two are exactly alike. The educator has to discover as best he or she can the causes for the recalcitrant attitudes. He or she cannot, if the educational process is to go on, make it a question of pitting one will against another in order to see which is strongest, nor yet allow the unruly and non-participating

pupils to stand permanently in the way of the educative activities of others. Exclusion perhaps is the only available measure at a given juncture, but it is no solution. For it may strengthen the very causes which have brought about the undesirable anti-social attitude, such as desire for attention or to show off.

Exceptions rarely prove a rule or give a clew to what the rule should be. I would not, therefore, attach too much importance to these exceptional cases, although it is true at present that progressive schools are likely often to have more than their fair share of these cases, since parents may send children to such schools as a last resort. I do not think weakness in control when it is found in progressive schools arises in any event from these exceptional cases. It is much more likely to arise from failure to arrange in advance for the kind of work (by which I mean all kinds of activities engaged in) which will create situations that of themselves tend to exercise control over what this, that, and the other pupil does and how he does it. This failure most often goes back to lack of sufficiently thoughtful planning in advance. The

causes for such lack are varied. The one which is peculiarly important to mention in this connection is the idea that such advance planning is unnecessary and even that it is inherently hostile to the legitimate freedom of those being instructed.

Now, of course, it is quite possible to have preparatory planning by the teacher done in such a rigid and intellectually inflexible fashion that it does result in adult imposition, which is none the less external because executed with tact and the semblance of respect for individual freedom. But this kind of planning does not follow inherently from the principle involved. I do not know what the greater maturity of the teacher and the teacher's greater knowledge of the world, of subject-matters and of individuals, is for unless the teacher can arrange conditions that are conducive to community activity and to organization which exercises control over individual impulses by the mere fact that all are engaged in communal projects. Because the kind of advance planning heretofore engaged in has been so routine as to leave little room for the free play of individual think-

ing or for contributions due to distinctive individual experience, it does not follow that all planning must be rejected. On the contrary, there is incumbent upon the educator the duty of instituting a much more intelligent, and consequently more difficult, kind of planning. He must survey the capacities and needs of the particular set of individuals with whom he is dealing and must at the same time arrange the conditions which provide the subject-matter or content for experiences that satisfy these needs and develop these capacities. The planning must be flexible enough to permit free play for individuality of experience and yet firm enough to give direction towards continuous development of power. \

The present occasion is a suitable one to say something about the province and office of the teacher. The principle that development of experience comes about through interaction means that education is essentially a social process. This quality is realized in the degree in which individuals form a community group. It is absurd to exclude the teacher from membership in the group. As the most mature member of

the group he has a peculiar responsibility for the conduct of the interactions and intercommunications which are the very life of the group as a community. That children are individuals whose freedom should be respected while the more mature person should have no freedom as an individual is an idea too absurd to require refutation. The tendency to exclude the teacher from a positive and leading share in the direction of the activities of the community of which he is a member is another instance of reaction from one extreme to another. When pupils were a class rather than a social group, the teacher necessarily acted largely from the outside, not as a director of processes of exchange in which all had a share. When education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external boss or dictator but takes on that of leader of group activities.

In discussing the conduct of games as an example of normal social control, reference was made to the presence of a standardized conventional factor. The counterpart of this factor in

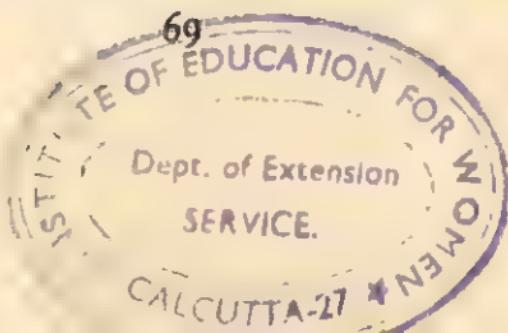
school life is found in the question of manners, especially of good manners in the manifestations of politeness and courtesy. The more we know about customs in different parts of the world at different times in the history of mankind, the more we learn how much manners differ from place to place and time to time. This fact proves that there is a large conventional factor involved. But there is no group at any time or place which does not have some code of manners as, for example, with respect to proper ways of greeting other persons. The particular form a convention takes has nothing fixed and absolute about it. But the existence of some form of convention is not itself a convention. It is a uniform attendant of all social relationships. At the very least, it is the oil which prevents or reduces friction.

It is possible, of course, for these social forms to become, as we say, "mere formalities." They may become merely outward show with no meaning behind them. But the avoidance of empty ritualistic forms of social intercourse does not mean the rejection of every formal element. It rather indicates the need for de-

velopment of forms of intercourse that are inherently appropriate to social situations. Visitors to some progressive schools are shocked by the lack of manners they come across. One who knows the situation better is aware that to some extent their absence is due to the eager interest of children to go on with what they are doing. In their eagerness they may, for example, bump into each other and into visitors with no word of apology. One might say that this condition is better than a display of merely external punctilio accompanying intellectual and emotional lack of interest in school work. But it also represents a failure in education, a failure to learn one of the most important lessons of life, that of mutual accommodation and adaptation. Education is going on in a one-sided way, for attitudes and habits are in process of formation that stand in the way of the future learning that springs from easy and ready contact and communication with others.

THE NATURE OF FREEDOM

AT THE risk of repeating what has been often said by me I want to say something about the other side of the problem of social control, namely, the nature of freedom. The only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgment exercised in behalf of purposes that are intrinsically worth while. The commonest mistake made about freedom is, I think, to identify it with freedom of movement, or with the external or physical side of activity. Now, this external and physical side of activity cannot be separated from the internal side of activity; from freedom of thought, desire, and purpose. The limitation that was put upon outward action by the fixed arrangements of the typical traditional school-



room, with its fixed rows of desks and its military regimen of pupils who were permitted to move only at certain fixed signals, put a great restriction upon intellectual and moral freedom. Strait-jacket and chain-gang procedures had to be done away with if there was to be a chance for growth of individuals in the intellectual springs of freedom without which there is no assurance of genuine and continued normal growth.

But the fact still remains that an increased measure of freedom of outer movement is a *means*, not an end. The educational problem is not solved when this aspect of freedom is obtained. Everything then depends, so far as education is concerned, upon what is done with this added liberty. What end does it serve? What consequences flow from it? Let me speak first of the advantages which reside potentially in increase of outward freedom. In the first place, without its existence it is practically impossible for a teacher to gain knowledge of the individuals with whom he is concerned. Enforced quiet and acquiescence prevent pupils from disclosing their real natures. They enforce arti-

ficial uniformity. They put seeming before being. They place a premium upon preserving the outward appearance of attention, decorum, and obedience. And everyone who is acquainted with schools in which this system prevailed well knows that thoughts, imaginations, desires, and sly activities ran their own unchecked course behind this façade. They were disclosed to the teacher only when some untoward act led to their detection. One has only to contrast this highly artificial situation with normal human relations outside the schoolroom, say in a well-conducted home, to appreciate how fatal it is to the teacher's acquaintance with and understanding of the individuals who are, supposedly, being educated. Yet without this insight there is only an accidental chance that the material of study and the methods used in instruction will so come home to an individual that his development of mind and character is actually directed. There is a vicious circle. Mechanical uniformity of studies and methods creates a kind of uniform immobility and this reacts to perpetuate uniformity of studies and of recitations, while behind this enforced uniformity indi-

vidual tendencies operate in irregular and more or less forbidden ways.

The other important advantage of increased outward freedom is found in the very nature of the learning process. That the older methods set a premium upon passivity and receptivity has been pointed out. Physical quiescence puts a tremendous premium upon these traits. The only escape from them in the standardized school is an activity which is irregular and perhaps disobedient. There cannot be complete quietude in a laboratory or workshop. The non-social character of the traditional school is seen in the fact that it erected silence into one of its prime virtues. There is, of course, such a thing as intense intellectual activity without overt bodily activity. But capacity for such intellectual activity marks a comparatively late achievement when it is continued for a long period. There should be brief intervals of time for quiet reflection provided for even the young. But they are periods of genuine reflection only when they follow after times of more overt action and are used to organize what has been gained in periods of activity in which the hands

and other parts of the body beside the brain are used. Freedom of movement is also important as a means of maintaining normal physical and mental health. We have still to learn from the example of the Greeks who saw clearly the relation between a sound body and a sound mind. But in all the respects mentioned freedom of outward action is a means to freedom of judgment and of power to carry deliberately chosen ends into execution. The amount of external freedom which is needed varies from individual to individual. It naturally tends to decrease with increasing maturity, though its complete absence prevents even a mature individual from having the contacts which will provide him with new materials upon which his intelligence may exercise itself. The amount and the quality of this kind of free activity as a means of growth is a problem that must engage the thought of the educator at every stage of development.

There can be no greater mistake, however, than to treat such freedom as an end in itself. It then tends to be destructive of the shared co-operative activities which are the normal source

of order. But, on the other hand, it turns freedom which should be positive into something negative. For freedom from restriction, the negative side, is to be prized only as a means to a freedom which is power: power to frame purposes, to judge wisely, to evaluate desires by the consequences which will result from acting upon them; power to select and order means to carry chosen ends into operation.

Natural impulses and desires constitute in any case the starting point. But there is no intellectual growth without some reconstruction, some remaking, of impulses and desires in the form in which they first show themselves. This remaking involves inhibition of impulse in its first estate. The alternative to externally imposed inhibition is inhibition through an individual's own reflection and judgment. The old phrase "stop and think" is sound psychology. For thinking is stoppage of the immediate manifestation of impulse until that impulse has been brought into connection with other possible tendencies to action so that a more comprehensive and coherent plan of activity is formed.

Some of the other tendencies to action lead to use of eye, ear, and hand to observe objective conditions; others result in recall of what has happened in the past. Thinking is thus a postponement of immediate action, while it effects internal control of impulse through a union of observation and memory, this union being the heart of reflection. What has been said explains the meaning of the well-worn phrase "self-control." The ideal aim of education is creation of power of self-control. But the mere removal of external control is no guarantee for the production of self-control. It is easy to jump out of the frying-pan into the fire. It is easy, in other words, to escape one form of external control only to find oneself in another and more dangerous form of external control. Impulses and desires that are not ordered by intelligence are under the control of accidental circumstances. It may be a loss rather than a gain to escape from the control of another person only to find one's conduct dictated by immediate whim and caprice; that is, at the mercy of impulses into whose formation intelligent judg-

ment has not entered. A person whose conduct is controlled in this way has at most only the illusion of freedom. Actually he is directed by forces over which he has no command.

VI

THE MEANING OF PURPOSE

IT IS, then, a sound instinct which identifies freedom with power to frame purposes and to execute or carry into effect purposes so framed. Such freedom is in turn identical with self-control; for the formation of purposes and the organization of means to execute them are the work of intelligence. Plato once defined a slave as the person who executes the purposes of another, and, as has just been said, a person is also a slave who is enslaved to his own blind desires. There is, I think, no point in the philosophy of progressive education which is sounder than its emphasis upon the importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process, just as there is no defect in traditional education greater than its failure to

secure the active co-operation of the pupil in construction of the purposes involved in his studying. But the meaning of purposes and ends is not self-evident and self-explanatory. The more their educational importance is emphasized, the more important it is to understand what a purpose is; how it arises and how it functions in experience.

A genuine purpose always starts with an impulse. Obstruction of the immediate execution of an impulse converts it into a desire. Nevertheless neither impulse nor desire is itself a purpose. A purpose is an end-view. That is, it involves foresight of the consequences which will result from acting upon impulse. Foresight of consequences involves the operation of intelligence. It demands, in the first place, observation of objective conditions and circumstances. For impulse and desire produce consequences not by themselves alone but through their interaction or co-operation with surrounding conditions. The impulse for such a simple action as walking is executed only in active conjunction with the ground on which one stands. Under ordinary circumstances, we do not have

to pay much attention to the ground. In a ticklish situation we have to observe very carefully just what the conditions are, as in climbing a steep and rough mountain where no trail has been laid out. Exercise of observation is, then, one condition of transformation of impulse into a purpose. As in the sign by a railway crossing, we have to stop, look, listen.

But observation alone is not enough. We have to understand the *significance* of what we see, hear, and touch. This significance consists of the consequences that will result when what is seen is acted upon. A baby may *see* the brightness of a flame and be attracted thereby to reach for it. The significance of the flame is then not its brightness but its power to burn, as the consequence that will result from touching it. We can be aware of consequences only because of previous experiences. In cases that are familiar because of many prior experiences we do not have to stop to remember just what those experiences were. A flame comes to signify light and heat without our having expressly to think of previous experiences of heat and burning. But in unfamiliar cases, we cannot tell just what

the consequences of observed conditions will be unless we go over past experiences in our mind, unless we reflect upon them and by seeing what is similar in them to those now present, go on to form a judgment of what may be expected in the present situation.

The formation of purposes is, then, a rather complex intellectual operation. It involves (1) observation of surrounding conditions; (2) knowledge of what has happened in similar situations in the past, a knowledge obtained partly by recollection and partly from the information, advice, and warning of those who have had a wider experience; and (3) judgment which puts together what is observed and what is recalled to see what they signify. A purpose differs from an original impulse and desire through its translation into a plan and method of action based upon foresight of the consequences of acting under given observed conditions in a certain way. "If wishes were horses, beggars would ride." Desire for something may be intense. It may be so strong as to override estimation of the consequences that will follow acting upon it. Such occurrences do

not provide the model for education. The crucial educational problem is that of procuring the postponement of immediate action upon desire until observation and judgment have intervened. Unless I am mistaken, this point is definitely relevant to the conduct of progressive schools. Overemphasis upon activity as an end, instead of upon *intelligent* activity, leads to identification of freedom with immediate execution of impulses and desires. This identification is justified by a confusion of impulse with purpose; although, as has just been said, there is no purpose unless overt action is postponed until there is foresight of the consequences of carrying the impulse into execution —a foresight that is impossible without observation, information, and judgment. Mere foresight, even if it takes the form of accurate prediction, is not, of course, enough. The intellectual anticipation, the idea of consequences, must blend with desire and impulse to acquire moving force. It then gives direction to what otherwise is blind, while desire gives ideas impetus and momentum. An idea then becomes a plan in and for an activity to be carried out.

Suppose a man has a desire to secure a new home, say by building a house. No matter how strong his desire, it cannot be directly executed. The man must form an idea of what kind of house he wants, including the number and arrangement of rooms, etc. He has to draw a plan, and have blue prints and specifications made. All this might be an idle amusement for spare time unless he also took stock of his resources. He must consider the relation of his funds and available credit to the execution of the plan. He has to investigate available sites, their price, their nearness to his place of business, to a congenial neighborhood, to school facilities, and so on and so on. All of the things reckoned with: his ability to pay, size and needs of family, possible locations, etc., etc., are objective facts. They are no part of the original desire. But they have to be viewed and judged in order that a desire may be converted into a purpose and a purpose into a plan of action.

All of us have desires, all at least who have not become so pathological that they are completely apathetic. These desires are the ultimate moving springs of action. A professional busi-

nessman wishes to succeed in his career; a general wishes to win the battle; a parent to have a comfortable home for his family, and to educate his children, and so on indefinitely. The intensity of the desire measures the strength of the efforts that will be put forth. But the wishes are empty castles in the air unless they are translated into the means by which they may be realized. The question of *how soon* or of means takes the place of a projected imaginative end, and, since means are objective, they have to be studied and understood if a genuine purpose is to be formed.

Traditional education tended to ignore the importance of personal impulse and desire as moving springs. But this is no reason why progressive education should identify impulse and desire with purpose and thereby pass lightly over the need for careful observation, for wide range of information, and for judgment if students are to share in the formation of the purposes which activate them. In an *educational* scheme, the occurrence of a desire and impulse is not the final end. It is an occasion and a demand for the formation of a plan and

method of activity. Such a plan, to repeat, can be formed only by study of conditions and by securing all relevant information.

// The teacher's business is to see that the occasion is taken advantage of. Since freedom resides in the operations of intelligent observation and judgment by which a purpose is developed, guidance given by the teacher to the exercise of the pupils' intelligence is an aid to freedom, not a restriction upon it. Sometimes teachers seem to be afraid even to make suggestions to the members of a group as to what they should do. I have heard of cases in which children are surrounded with objects and materials and then left entirely to themselves, the teacher being loath to suggest even what might be done with the materials lest freedom be infringed upon. Why, then, even supply materials, since they are a source of some suggestion or other? But what is more important is that the suggestion upon which pupils act must in any case come from somewhere. It is impossible to understand why a suggestion from one who has a larger experience and a wider horizon should not be at

least as valid as a suggestion arising from some more or less accidental source.

It is possible of course to abuse the office, and to force the activity of the young into channels which express the teacher's purpose rather than that of the pupils. But the way to avoid this danger is not for the adult to withdraw entirely. The way is, first, for the teacher to be intelligently aware of the capacities, needs, and past experiences of those under instruction, and, secondly, to allow the suggestion made to develop into a plan and project by means of the further suggestions contributed and organized into a whole by the members of the group. The plan, in other words, is a co-operative enterprise, not a dictation. The teacher's suggestion is not a mold for a cast-iron result but is a starting point to be developed into a plan through contributions from the experience of all engaged in the learning process. The development occurs through reciprocal give-and-take, the teacher taking but not being afraid also to give. The essential point is that the purpose grow and take shape through the process of social intelligence.

VII

PROGRESSIVE ORGANIZATION OF SUBJECT-MATTER

ALLUSION has been made in passing a number of times to objective conditions involved in experience and to their function in promoting or failing to promote the enriched growth of further experience. By implication, these objective conditions, whether those of observation, of memory, of information procured from others, or of imagination, have been identified with the subject-matter of study and learning; or, speaking more generally, with the stuff of the course of study. Nothing, however, has been said explicitly so far about subject-matter as such. That topic will now be discussed. One consideration stands out clearly when education is conceived in terms of experience. Anything which can be called a study,

whether arithmetic, history, geography, or one of the natural sciences, must be derived from materials which at the outset fall within the scope of ordinary life-experience. In this respect the newer education contrasts sharply with procedures which start with facts and truths that are outside the range of the experience of those taught, and which, therefore, have the problem of discovering ways and means of bringing them within experience. Undoubtedly one chief cause for the great success of newer methods in early elementary education has been its observance of the contrary principle.

But finding the material for learning within experience is only the first step. The next step is the progressive development of what is already experienced into a fuller and richer and also more organized form, a form that gradually approximates that in which subject-matter is presented to the skilled, mature person. That this change is possible without departing from the organic connection of education with experience is shown by the fact that this change takes place outside of the school and apart from formal education. The infant, for example, be-

gins with an environment of objects that is very restricted in space and time. That environment steadily expands by the momentum inherent in experience itself without aid from scholastic instruction. As the infant learns to reach, creep, walk, and talk, the intrinsic subject-matter of its experience widens and deepens. It comes into connection with new objects and events which call out new powers, while the exercise of these powers refines and enlarges the content of its experience. Life-space and life-durations are expanded. The environment, the world of experience, constantly grows larger and, so to speak, thicker. The educator who receives the child at the end of this period has to find ways for doing consciously and deliberately what "nature" accomplishes in the earlier years.

It is hardly necessary to insist upon the first of the two conditions which have been specified. It is a cardinal precept of the newer school of education that the beginning of instruction shall be made with the experience learners already have; that this experience and the capacities that have been developed during its course provide the starting point for all further learning.

I am not so sure that the other condition, that of orderly development toward expansion and organization of subject-matter through growth of experience, receives as much attention. Yet the principle of continuity of educative experience requires that equal thought and attention be given to solution of this aspect of the educational problem. Undoubtedly this phase of the problem is more difficult than the other. Those who deal with the pre-school child, with the kindergarten child, and with the boy and girl of the early primary years do not have much difficulty in determining the range of past experience or in finding activities that connect in vital ways with it. With older children both factors of the problem offer increased difficulties to the educator. It is harder to find out the background of the experience of individuals and harder to find out just how the subject-matters already contained in that experience shall be directed so as to lead out to larger and better organized fields.

It is a mistake to suppose that the principle of the leading on of experience to something different is adequately satisfied simply by giv-

ing pupils some new experiences any more than it is by seeing to it that they have greater skill and ease in dealing with things with which they are already familiar. It is also essential that the new objects and events be related intellectually to those of earlier experiences, and this means that there be some advance made in conscious articulation of facts and ideas. It thus becomes the office of the educator to select those things within the range of existing experience that have the promise and potentiality of presenting new problems which by stimulating new ways of observation and judgment will expand the area of further experience. He must constantly regard what is already won not as a fixed possession but as an agency and instrumentality for opening new fields which make new demands upon existing powers of observation and of intelligent use of memory. Connectedness in growth must be his constant watchword.

The educator more than the member of any other profession is concerned to have a long look ahead. The physician may feel his job done when he has restored a patient to health. He has undoubtedly the obligation of advising

him how to live so as to avoid similar troubles in the future. But, after all, the conduct of his life is his own affair, not the physician's; and what is more important for the present point is that as far as the physician does occupy himself with instruction and advice as to the future of his patient he takes upon himself the function of an educator. The lawyer is occupied with winning a suit for his client or getting the latter out of some complication into which he has got himself. If it goes beyond the case presented to him he too becomes an educator. The educator by the very nature of his work is obliged to see his present work in terms of what it accomplishes, or fails to accomplish, for a future whose objects are linked with those of the present.

Here, again, the problem for the progressive educator is more difficult than for the teacher in the traditional school. The latter had indeed to look ahead. But unless his personality and enthusiasm took him beyond the limits that hedged in the traditional school, he could content himself with thinking of the next examination period or the promotion to the next

class. He could envisage the future in terms of factors that lay within the requirements of the school system as that conventionally existed. There is incumbent upon the teacher who links education and actual experience together a more serious and a harder business. He must be aware of the potentialities for leading students into new fields which belong to experiences already had, and must use this knowledge as his criterion for selection and arrangement of the conditions that influence their present experience.

Because the studies of the traditional school consisted of subject-matter that was selected and arranged on the basis of the judgment of adults as to what would be useful for the young sometime in the future, the material to be learned was settled upon outside the present life-experience of the learner. In consequence, it had to do with the past; it was such as had proved useful to men in past ages. By reaction to an opposite extreme, as unfortunate as it was probably natural under the circumstances, the sound idea that education should derive its materials from present experience and should

enable the learner to cope with the problems of the present and future has often been converted into the idea that progressive schools can to a very large extent ignore the past. If the present could be cut off from the past, this conclusion would be sound. But the achievements of the past provide the only means at command for understanding the present. Just as the individual has to draw in memory upon his own past to understand the conditions in which he individually finds himself, so the issues and problems of present *social* life are in such intimate and direct connection with the past that students cannot be prepared to understand either these problems or the best way of dealing with them without delving into their roots in the past. In other words, the sound principle that the objectives of learning are in the future and its immediate materials are in present experience can be carried into effect only in the degree that present experience is stretched, as it were, backward. It can expand into the future only as it is also enlarged to take in the past.

If time permitted, discussion of the political and economic issues which the present genera-

tion will be compelled to face in the future would render this general statement definite and concrete. The nature of the issues cannot be understood save as we know how they came about. The institutions and customs that exist in the present and that give rise to present social ills and dislocations did not arise overnight. They have a long history behind them. Attempt to deal with them simply on the basis of what is obvious in the present is bound to result in adoption of superficial measures which in the end will only render existing problems more acute and more difficult to solve. Policies framed simply upon the ground of knowledge of the present cut off from the past is the counterpart of heedless carelessness in individual conduct. The way out of scholastic systems that made the past an end in itself is to make acquaintance with the past a *means* of understanding the present. Until this problem is worked out, the present clash of educational ideas and practices will continue. On the one hand, there will be reactionaries that claim that the main, if not the sole, business of education is transmission of the cultural heritage. On the

other hand, there will be those who hold that we should ignore the past and deal only with the present and future.

That up to the present time the weakest point in progressive schools is in the matter of selection and organization of intellectual subject-matter is, I think, inevitable under the circumstances. It is as inevitable as it is right and proper that they should break loose from the cut and dried material which formed the staple of the old education. In addition, the field of experience is very wide and it varies in its contents from place to place and from time to time. A single course of studies for all progressive schools is out of the question; it would mean abandoning the fundamental principle of connection with life-experiences. Moreover, progressive schools are new. They have had hardly more than a generation in which to develop. A certain amount of uncertainty and of laxity in choice and organization of subject-matter is, therefore, what was to be expected. It is no ground for fundamental criticism or complaint.

It is a ground for legitimate criticism, however, when the ongoing movement of progres-

sive education fails to recognize that the problem of selection and organization of subject-matter for study and learning is fundamental. Improvisation that takes advantage of special occasions prevents teaching and learning from being stereotyped and dead. But the basic material of study cannot be picked up in a cursory manner. Occasions which are not and cannot be foreseen are bound to arise wherever there is intellectual freedom. They should be utilized. But there is a decided difference between using them in the development of a continuing line of activity and trusting to them to provide the chief material of learning.

Unless a given experience leads out into a field previously unfamiliar no problems arise, while problems are the stimulus to thinking. That the conditions found in present experience should be used as sources of problems is a characteristic which differentiates education based upon experience from traditional education. For in the latter, problems were set from outside. Nonetheless, growth depends upon the presence of difficulty to be overcome by the exercise of intelligence. Once more, it is part of the edu-

tor's responsibility to see equally to two things: First, that the problem grows out of the conditions of the experience being had in the present, and that it is within the range of the capacity of students; and, secondly, that it is such that it arouses in the learner an active quest for information and for production of new ideas. The new facts and new ideas thus obtained become the ground for further experiences in which new problems are presented. The process is a continuous spiral. The inescapable linkage of the present with the past is a principle whose application is not restricted to a study of history. Take natural science, for example. Contemporary social life is what it is in very large measure because of the results of application of physical science. The experience of every child and youth, in the country and the city, is what it is in its present actuality because of appliances which utilize electricity, heat, and chemical processes. A child does not eat a meal that does not involve in its preparation and assimilation chemical and physiological principles. He does not read by artificial light or take a ride in a motor car or on a train without coming into

contact with operations and processes which science has engendered.

It is a sound educational principle that students should be introduced to scientific subject-matter and be initiated into its facts and laws through acquaintance with everyday social applications. Adherence to this method is not only the most direct avenue to understanding of science itself but as the pupils grow more mature it is also the surest road to the understanding of the economic and industrial problems of present society. For they are the products to a very large extent of the application of science in production and distribution of commodities and services, while the latter processes are the most important factor in determining the present relations of human beings and social groups to one another. It is absurd, then, to argue that processes similar to those studied in laboratories and institutes of research are not a part of the daily life-experience of the young and hence do not come within the scope of education based upon experience. That the immature cannot study scientific facts and principles in the way in which mature experts study them goes with-

out saying. But this fact, instead of exempting the educator from responsibility for using present experiences so that learners may gradually be led, through extraction of facts and laws, to experience of a scientific order, sets one of his main problems.

For if it is true that existing experience in detail and also on a wide scale is what it is because of the application of science, first, to processes of production and distribution of goods and services, and then to the relations which human beings sustain socially to one another, it is impossible to obtain an understanding of present social forces (without which they cannot be mastered and directed) apart from an education which leads learners into knowledge of the very same facts and principles which in their final organization constitute the sciences. Nor does the importance of the principle that learners should be led to acquaintance with scientific subject-matter cease with the insight thereby given into present social issues. The methods of science also point the way to the measures and policies by means of which a better social order can be brought into existence.

The applications of science which have produced in large measure the social conditions which now exist do not exhaust the possible field of their application. For so far science has been applied more or less casually and under the influence of ends, such as private advantage and power, which are a heritage from the institutions of a prescientific age.

We are told almost daily and from many sources that it is impossible for human beings to direct their common life intelligently. We are told, on one hand, that the complexity of human relations, domestic and international, and on the other hand, the fact that human beings are so largely creatures of emotion and habit, make impossible large-scale social planning and direction by intelligence. This view would be more credible if any systematic effort, beginning with early education and carried on through the continuous study and learning of the young, had ever been undertaken with a view to making the method of intelligence, exemplified in science, supreme in education. There is nothing in the inherent nature of habit that prevents intelligent method from becom-

ing itself habitual; and there is nothing in the nature of emotion to prevent the development of intense emotional allegiance to the method.

The case of science is here employed as an illustration of progressive selection of subject-matter resident in present experience towards organization: an organization which is free, not externally imposed, because it is in accord with the growth of experience itself. The utilization of subject-matter found in the present life-experience of the learner towards science is perhaps the best illustration that can be found of the basic principle of using existing experience as the means of carrying learners on to a wider, more refined, and better organized environing world, physical and human, than is found in the experiences from which educative growth sets out. Hogben's recent work, *Mathematics for the Million*, shows how mathematics, if it is treated as a mirror of civilization and as a main agency in its progress, can contribute to the desired goal as surely as can the physical sciences. The underlying ideal in any case is that of progressive organization of knowledge. It is with reference to organization of knowledge

that we are likely to find *Either-Or* philosophies most acutely active. In practice, if not in so many words, it is often held that since traditional education rested upon a conception of organization of knowledge that was almost completely contemptuous of living present experience, therefore education based upon living experience should be contemptuous of the organization of facts and ideas.

When a moment ago I called this organization an *ideal*, I meant, on the negative side, that the educator cannot start with knowledge already organized and proceed to ladle it out in doses. But as an ideal the active process of organizing facts and ideas is an ever-present educational process. No experience is educative that does not tend both to knowledge of more facts and entertaining of more ideas and to a better, a more orderly, arrangement of them. It is not true that organization is a principle foreign to experience. Otherwise experience would be so dispersive as to be chaotic. The experience of young children centers about persons and the home. Disturbance of the normal order of relationships in the family is now known by psychi-

atrists to be a fertile source of later mental and emotional troubles—a fact which testifies to the reality of this kind of organization. One of the great advances in early school education, in the kindergarten and early grades, is that it preserves the social and human center of the organization of experience, instead of the older violent shift of the center of gravity. But one of the outstanding problems of education, as of music, is modulation. In the case of education, modulation means movement from a social and human center toward a more objective intellectual scheme of organization, always bearing in mind, however, that intellectual organization is not an end in itself but is the means by which social relations, distinctively human ties and bonds, may be understood and more intelligently ordered.

When education is based in theory and practice upon experience, it goes without saying that the organized subject-matter of the adult and the specialist cannot provide the starting point. Nevertheless, it represents the goal toward which education should continuously move. It is hardly necessary to say that one of the most

fundamental principles of the scientific organization of knowledge is the principle of cause-and-effect. The way in which this principle is grasped and formulated by the scientific specialist is certainly very different from the way in which it can be approached in the experience of the young. But neither the relation nor grasp of its meaning is foreign to the experience of even the young child. When a child two or three years of age learns not to approach a flame too closely and yet to draw near enough a stove to get its warmth he is grasping and using the causal relation. There is no intelligent activity that does not conform to the requirements of the relation, and it is intelligent in the degree in which it is not only conformed to but consciously borne in mind.

In the earlier forms of experience the causal relation does not offer itself in the abstract but in the form of the relation of means employed to ends attained; of the relation of means and consequences. Growth in judgment and understanding is essentially growth in ability to form purposes and to select and arrange means for their realization. The most elementary experi-

ences of the young are filled with cases of the means-consequence relation. There is not a meal cooked nor a source of illumination employed that does not exemplify this relation. The trouble with education is not the absence of situations in which the causal relation is exemplified in the relation of means and consequences. Failure to utilize the situations so as to lead the learner on to grasp the relation in the given cases of experience is, however, only too common. The logician gives the names "analysis and synthesis" to the operations by which means are selected and organized in relation to a purpose.

This principle determines the ultimate foundation for the utilization of *activities* in school. Nothing can be more absurd educationally than to make a plea for a variety of active occupations in the school while decrying the need for progressive organization of information and ideas. Intelligent activity is distinguished from aimless activity by the fact that it involves selection of means—analysis—out of the variety of conditions that are present, and their arrangement—synthesis—to reach an in-

tended aim or purpose. That the more immature the learner is, the simpler must be the ends held in view and the more rudimentary the means employed, is obvious. But the principle of organization of activity in terms of some perception of the relation of consequences to means applies even with the very young. Otherwise an activity ceases to be educative because it is blind. With increased maturity, the problem of interrelation of means becomes more urgent. In the degree in which intelligent observation is transferred from the relation of means to ends to the more complex question of the relation of means to one another, the idea of cause and effect becomes prominent and explicit. The final justification of shops, kitchens, and so on in the school is not just that they afford opportunity for activity, but that they provide opportunity for the *kind* of activity or for the acquisition of mechanical skills which leads students to attend to the relation of means and ends, and then to consideration of the way things interact with one another to produce definite effects. It is the same in principle as

the ground for laboratories in scientific research.

Unless the problem of intellectual organization can be worked out on the ground of experience, reaction is sure to occur toward externally imposed methods of organization. There are signs of this reaction already in evidence. We are told that our schools, old and new, are failing in the main task. They do not develop, it is said, the capacity for critical discrimination and the ability to reason. The ability to think is smothered, we are told, by accumulation of miscellaneous ill-digested information, and by the attempt to acquire forms of skill which will be immediately useful in the business and commercial world. We are told that these evils spring from the influence of science and from the magnification of present requirements at the expense of the tested cultural heritage from the past. It is argued that science and its method must be subordinated; that we must return to the logic of ultimate first principles expressed in the logic of Aristotle and St. Thomas, in order that the young may have sure anchorage in their intellectual

and moral life, and not be at the mercy of every passing breeze that blows.

If the method of science had ever been consistently and continuously applied throughout the day-by-day work of the school in all subjects, I should be more impressed by this emotional appeal than I am. I see at bottom but two alternatives between which education must choose if it is not to drift aimlessly. One of them is expressed by the attempt to induce educators to return to the intellectual methods and ideals that arose centuries before scientific method was developed. The appeal may be temporarily successful in a period when general insecurity, emotional and intellectual as well as economic, is rife. For under these conditions the desire to lean on fixed authority is active. Nevertheless, it is so out of touch with all the conditions of modern life that I believe it is folly to seek salvation in this direction. The other alternative is systematic utilization of scientific method as the pattern and ideal of intelligent exploration and exploitation of the potentialities inherent in experience.

The problem involved comes home with

peculiar force to progressive schools. Failure to give constant attention to development of the intellectual content of experiences and to obtain ever-increasing organization of facts and ideas may in the end merely strengthen the tendency toward a reactionary return to intellectual and moral authoritarianism. The present is not the time nor place for a disquisition upon scientific method. But certain features of it are so closely connected with any educational scheme based upon experience that they should be noted.

In the first place, the experimental method of science attaches more importance, not less, to ideas as ideas than do other methods. There is no such thing as experiment in the scientific sense unless action is directed by some leading idea. The fact that the ideas employed are hypotheses, not final truths, is the reason why ideas are more jealously guarded and tested in science than anywhere else. The moment they are taken to be first truths in themselves there ceases to be any reason for scrupulous examination of them. As fixed truths they must be accepted and that is the end of the matter. But as hypotheses, they must be continuously tested

and revised, a requirement that demands they be accurately formulated.

In the second place, ideas or hypotheses are tested by the consequences which they produce when they are acted upon. This fact means that the consequences of action must be carefully and discriminatingly observed. Activity that is not checked by observation of what follows from it may be temporarily enjoyed. But intellectually it leads nowhere. It does not provide knowledge about the situations in which action occurs nor does it lead to clarification and expansion of ideas.

In the third place, the method of intelligence manifested in the experimental method demands keeping track of ideas, activities, and observed consequences. Keeping track is a matter of reflective review and summarizing, in which there is both discrimination and record of the significant features of a developing experience. To reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences. It is the heart of intellectual organization and of the disciplined mind.

I have been forced to speak in general and often abstract language. But what has been said is organically connected with the requirement that experiences in order to be educative must lead out into an expanding world of subject-matter, a subject-matter of facts or information and of ideas. This condition is satisfied only as the educator views teaching and learning as a continuous process of reconstruction of experience. This condition in turn can be satisfied only as the educator has a long look ahead, and views every present experience as a moving force in influencing what future experiences will be. I am aware that the emphasis I have placed upon scientific method may be misleading, for it may result only in calling up the special technique of laboratory research as that is conducted by specialists. But the meaning of the emphasis placed upon scientific method has little to do with specialized techniques. It means that scientific method is the only authentic means at our command for getting at the significance of our everyday experiences of the world in which we live. It means that scientific method provides a working pattern of the way

in which and the conditions under which experiences are used to lead ever onward and outward. Adaptation of the method to individuals of various degrees of maturity is a problem for the educator, and the constant factors in the problem are the formation of ideas, acting upon ideas, observation of the conditions which result, and organization of facts and ideas for future use. Neither the ideas, nor the activities, nor the observations, nor the organization are the same for a person six years old as they are for one twelve or eighteen years old, to say nothing of the adult scientist. But at every level there is an expanding development of experience if experience is educative in effect. Consequently, whatever the level of experience, we have no choice but either to operate in accord with the pattern it provides or else to neglect the place of intelligence in the development and control of a living and moving experience.

VIII

EXPERIENCE—THE MEANS AND GOAL OF EDUCATION

IN what I have said I have taken for granted the soundness of the principle that education in order to accomplish its ends both for the individual learner and for society must be based upon experience—which is always the actual life-experience of some individual. I have not argued for the acceptance of this principle nor attempted to justify it. Conservatives as well as radicals in education are profoundly discontented with the present educational situation taken as a whole. There is at least this much agreement among intelligent persons of both schools of educational thought. The educational system must move one way or another, either backward to the intellectual and moral standards of a pre-scientific age or forward to ever

greater utilization of scientific method in the development of the possibilities of growing, expanding experience. I have but endeavored to point out some of the conditions which must be satisfactorily fulfilled if education takes the latter course.

For I am so confident of the potentialities of education when it is treated as intelligently directed development of the possibilities inherent in ordinary experience that I do not feel it necessary to criticize here the other route nor to advance arguments in favor of taking the route of experience. The only ground for anticipating failure in taking this path resides to my mind in the danger that experience and the experimental method will not be adequately conceived. There is no discipline in the world so severe as the discipline of experience subjected to the tests of intelligent development and direction. Hence the only ground I can see for even a temporary reaction against the standards, aims, and methods of the newer education is the failure of educators who professedly adopt them to be faithful to them in practice. As I have emphasized more than once, the road of

the new education is not an easier one to follow than the old road but a more strenuous and difficult one. It will remain so until it has attained its majority and that attainment will require many years of serious co-operative work on the part of its adherents. The greatest danger that attends its future is, I believe, the idea that it is an easy way to follow, so easy that its course may be improvised, if not in an impromptu fashion, at least almost from day to day or from week to week. It is for this reason that instead of extolling its principles, I have confined myself to showing certain conditions which must be fulfilled if it is to have the successful career which by right belongs to it.

I have used frequently in what precedes the words "progressive" and "new" education. I do not wish to close, however, without recording my firm belief that the fundamental issue is not of new versus old education nor of progressive against traditional education but a question of what anything whatever must be to be worthy of the name *education*. I am not, I hope and believe, in favor of any ends or any methods simply because the name progressive may be

applied to them. The basic question concerns the nature of education with no qualifying adjectives prefixed. What we want and need is education pure and simple, and we shall make surer and faster progress when we devote ourselves to finding out just what education is and what conditions have to be satisfied in order that education may be a reality and not a name or a slogan. It is for this reason alone that I have emphasized the need for a sound philosophy of experience.

